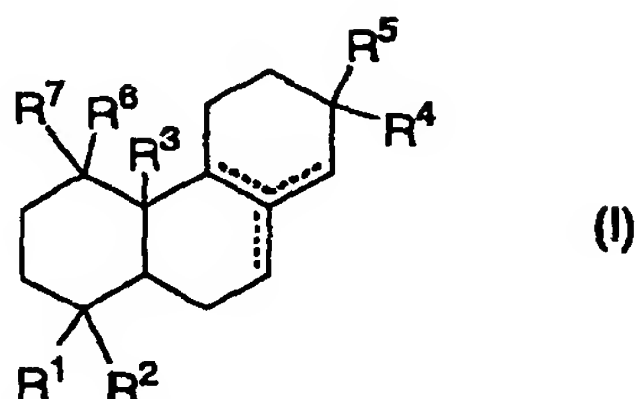


## CLAIMS:

1. A potassium channel opener comprising a compound represented by the formula [I]:



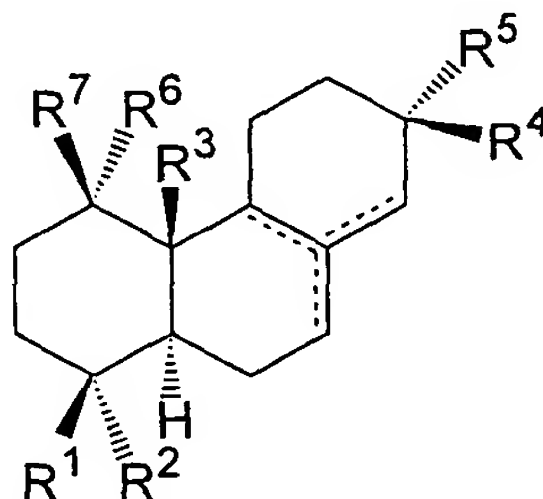
5

wherein  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are each independently hydrogen, alkyl, alkenyl, halogen, hydroxy, halogenated alkyl, hydroxyalkyl, aminoalkyl, alkoxy, aryl, heteroaryl, acyl, carboxyl, alkoxycarbonyl, hydroxamate, sulfo, carbamoyl, sulfonamide, aldehyde or nitrile; or  $R^4$  and  $R^5$  may be bonded to each other to form a ring; or  $R^6$  and  $R^7$  may be bonded to each other to form a ring; and all of three bonds represented by ---- are single bonds, or one of the three bonds is double bond and the other bonds are single bonds,

15

or a physiologically acceptable salt thereof as an active ingredient.

2. The potassium channel opener according to Claim 1, comprising a compound represented by the formula:



20

wherein  $R^2$  is hydroxy, hydroxyalkyl, aminoalkyl, alkoxy, acyl, carboxyl, hydroxamate, sulfo, carbamoyl, sulfonamide or nitrile;

25

$R^1$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are each independently hydrogen, alkyl, alkenyl, halogen, hydroxy, halogenated alkyl, hydroxyalkyl, aminoalkyl, alkoxy, aryl, heteroaryl, acyl,

carboxyl, alkoxycarbonyl, hydroxamate, sulfo, carbamoyl, sulfonamide, aldehyde or nitrile; or  $R^4$  and  $R^5$  may be bonded to each other to form a ring; or  $R^6$  and  $R^7$  may be bonded to each other to form a ring;

5 and all of three bonds represented by ---- are single bonds, or one of the three bonds is double bond and the other bonds are single bonds,

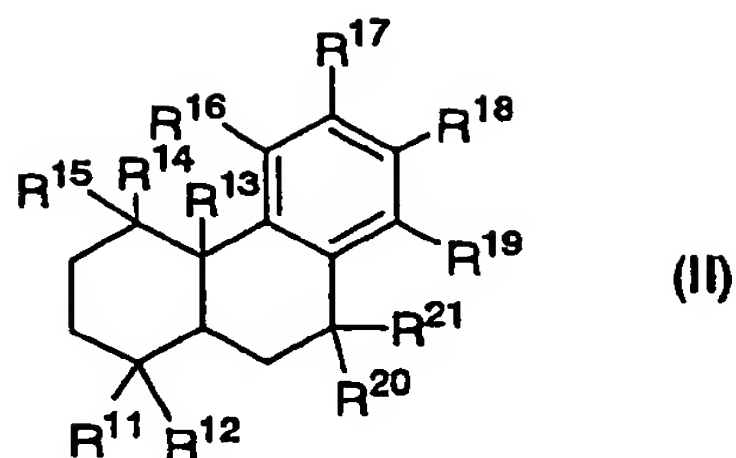
or a physiologically acceptable salt thereof as an active ingredient.

10 3. The potassium channel opener according to Claim 1 or 2, comprising as an effective ingredient a compound wherein  $R^1$ ,  $R^3$ ,  $R^4$  and  $R^5$  are alkyl or alkenyl,  $R^6$  and  $R^7$  are hydrogen and  $R^2$  is carboxyl, or a physiologically acceptable salt thereof.

15 4. The potassium channel opener according to Claim 1 or 2, comprising as an effective ingredient a substance selected from the group consisting of the following compounds: (1) a compound wherein  $R^1$  is alkyl,  $R^2$  is carboxyl,  $R^3$  is alkyl,  $R^4$  is alkenyl,  $R^5$  is alkyl, and  $R^6$  and  $R^7$  are hydrogen, (2) a compound wherein  $R^1$  is alkyl,  $R^2$  is carboxyl,  $R^3$  is alkyl,  $R^4$  is alkyl,  $R^5$  is alkenyl, and  $R^6$  and  $R^7$  are hydrogen, and (3) a compound wherein  $R^1$  is alkyl,  $R^2$  is carboxyl,  $R^3$  is alkyl,  $R^4$  is alkyl,  $R^5$  is alkyl, and  $R^6$  and  $R^7$  are hydrogen, and a physiologically acceptable salt thereof.

25 5. The potassium channel opener according to Claim 1, comprising as an effective ingredient a substance selected from the group consisting of pimaric acid, dihydropimaric acid, dihydroisopimarinol, sandaracopimaric acid, isopimaric acid, and dihydroisopimaric acid, and a physiologically acceptable salt thereof.

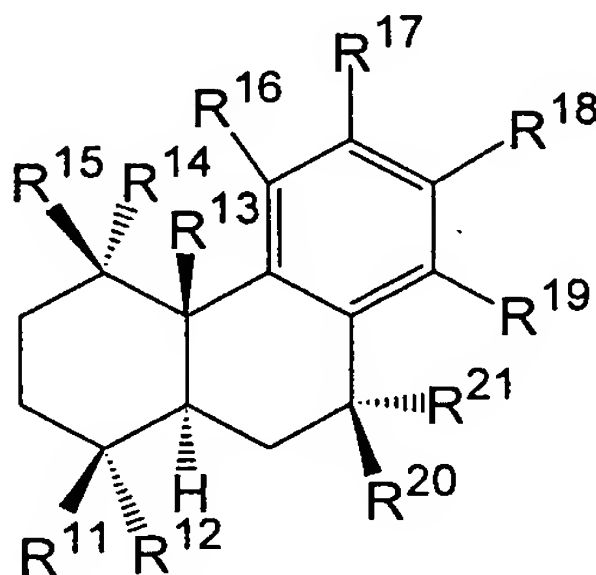
30 6. A potassium channel opener comprising a compound represented by the following formula (II):



wherein  $R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$  and  $R^{21}$  are each independently hydrogen, alkyl, alkenyl, halogen, hydroxy, halogenated alkyl, hydroxyalkyl, aminoalkyl, alkoxy, aryl, heteroaryl, acyl, carboxyl, alkoxycarbonyl, hydroxamate, sulfo, carbamoyl, sulfonamide, aldehyde or nitrile; or  $R^{20}$  and  $R^{21}$  may be bonded to each other to form oxo,

or a physiologically acceptable salt thereof as an active ingredient.

7. The potassium channel opener according to Claim 6, comprising a compound represented by the formula:



wherein  $R^{12}$  is acyl, carboxyl, hydroxamate, sulfo, carbamoyl, sulfonamide or nitrile;  $R^{11}$ ,  $R^{13}$ ,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{17}$ ,  $R^{18}$ ,  $R^{19}$ ,  $R^{20}$  and  $R^{21}$  are each independently hydrogen, alkyl, alkenyl, halogen, hydroxy, halogenated alkyl, hydroxyalkyl, aminoalkyl, alkoxy, aryl, heteroaryl, acyl, carboxyl, alkoxycarbonyl, hydroxamate, sulfo, carbamoyl, sulfonamide, aldehyde or nitrile; or  $R^{20}$  and  $R^{21}$  may be bonded to each other to form oxo, or a physiologically acceptable salt thereof as an active ingredient.

8. The potassium channel opener according to Claim 6 or 7, comprising as an effective ingredient a compound wherein  $R^{11}$ ,

$R^{13}$ , and  $R^{18}$  are alkyls,  $R^{12}$  is carboxyl,  $R^{14}$ ,  $R^{15}$  and  $R^{16}$  are hydrogen, or a physiologically acceptable salt thereof.

9. The potassium channel opener according to Claim 6 or 7, comprising as an effective ingredient a compound wherein  $R^{11}$ ,  
5  $R^{13}$  and  $R^{18}$  are alkyls,  $R^{12}$  is carboxyl,  $R^{14}$ ,  $R^{15}$ ,  $R^{16}$ ,  $R^{20}$ , and  $R^{21}$  are hydrogen, and  $R^{17}$  and  $R^{19}$  are halogen, or a physiologically acceptable salt thereof.

10. The potassium channel opener according to any claim of Claims 1 to 9, which is a calcium-activated potassium channel  
10 opener.

11. The potassium channel opener according to any claim of Claims 1 to 9, which is used for prevention and/or treatment of essential hypertension, tonic bladder, airway  
hyperresponsiveness, or ischemic central nervous system  
15 disorder.